



Milling and Race Horse (Pony) Oat Production

FarmFacts

Produced by Saskatchewan Agriculture and Food and Saskatchewan Rural Development

Selecting a Field

Avoid fields where volunteer cereals are a problem, in particular, volunteer barley. Also avoid fields where volunteer field peas may be a problem.

Avoid fields infested with wild oat. Most millers demand less than one per cent wild oat, and the race horse oat market demands nil wild oat.

Avoid land that has been recently treated with soil incorporated herbicide products that have activity on wild oat and thus oat. Two common products are triallate and trifluralin. Consult the label for details.

Select relatively uniform fields to avoid green patches at harvest. However, green patches may be harvested separately as feed oat.

Selecting a Variety and Seed

Certified seed assures you quality and varietal purity. Using oat seed contaminated with other cereals and/or wild oat greatly reduces the chance of producing a milling or race horse grade. Therefore, it is especially important to use clean, high quality seed.

Select a variety with high test weight and low hull content. Calibre, Derby, or Jasper are the best choices where rust is not a problem. Jasper has good quality and is earlier maturing but is lower yielding than Calibre or Derby. Use

Dumont where there is economic risk due to rust. White, bright kernel varieties are preferred by the milling and race horse industries, therefore, brown hulled varieties like Riel and Robert are less desirable. Consult the most recent copy of the "Varieties of Grain Crops for Saskatchewan" for further information.

Seeding Date/Depth/Rate

Sow early to avoid mid-season drought and heat at heading time and to reduce risks due to delayed maturity. Mid-May is generally best. Oat varieties generally mature later than barley varieties. The soil temperature at seeding time should be a minimum of 5 degrees C and preferably 10-15 degrees C. Some farmers successfully practice delayed seeding to help reduce wild oat infestations.

Plant shallow, 1 1/2 to 2 1/2 inches. Seed as shallow as possible but into adequate moisture for uniform germination.

Adjust the seeding rate for seedbed conditions, germination, and seed size to achieve the desired plant population of approximately 24 plants per square foot.

Fertilizer Practices

Oat responds to both nitrogen and phosphate fertilizer in soils where these nutrients are limiting. Use a soil test to determine which nutrients may limit growth and the amounts of each nutrient needed to

correct the deficiency for various soil moisture levels. You may want to consult with the publication "General Recommendations for Fertilization in Saskatchewan" if you do not have a soil test. Excess nitrogen may result in lodging and late maturity. Lodged crops generally produce lower test weight kernels and other less acceptable milling attributes.

Weed Control

Consult the most recent copy of "Chemical Weed Control in Cereal, Oilseed, Pulse, and Forage Crops" for weed control in oat crops. Remember, currently, there isn't a herbicide that will control wild oat in tame oat crops. Also there isn't a tame oat variety that is resistant to current wild oat herbicides. It is a valuable practice to assess each field for weeds and plan your weed control program accordingly. Always read and follow label directions.

Harvesting

Oat crops are subject to shattering. To produce the best milling and race horse oat the crop should be left standing as long as possible because size, color, and weight of kernels are very important characteristics. Ideally, a milling oat crop is ready to swath when the kernel moisture content is below 20 per cent. However, acceptable milling oat can be produced when swathed above 20 per cent moisture and cured in the swath. Shattering losses are generally higher with milling oat than with feed oat because milling oat crops

are left standing longer to maximize kernel plumpness and minimize the per cent of green kernels before swathing. Harvest patches with wild oat and green patches separately. Avoid peeling (dehulling), chipping and/or cracking the kernels during combining.

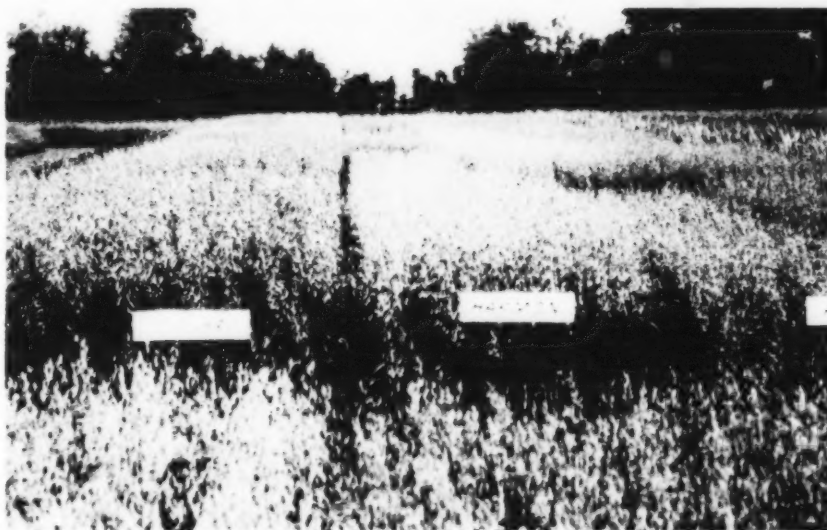
Combine settings will be similar to those used when harvesting malting barley. A cylinder speed of 600 to 900 rpm and a concave clearance just sufficient to remove the seed from the plant material is best. The return should be kept to a minimum. When combining, avoid picking up rocks, lumps of soil and other foreign material.

Grades, Storage and Sampling

Acceptable level for green kernels in a milling and race horse oat sample is very low. The number of green kernels must be less than three per cent for most millers. Also, the race horse market finds green kernels unacceptable. Wet harvest conditions may cause staining and mildewing of kernels making them less acceptable for milling. Also the race horse market finds stained and mildewed kernels unacceptable.

For safe storage, the kernel moisture must be 14 per cent or lower, however, the milling industry prefers the moisture content to be 12.5 per cent or lower.

Preparing a representative sample is as important in the milling and race horse oat industries as it is in the malting barley industry. Pull two to three handfuls out of each truckload as you fill the storage bin. Mix the collected sample well and store in a cool dry location until the stored oat is marketed.



The key to growing milling and race horse oats is a clean pure crop. To achieve this, use certified seed.

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